ARIZONA CORP. COMM

400 W CONGRESS STE 218 TUCSON AZ 8570°



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# BEFORE THE ARIZONA CORPORATION COMPRESSION OF THE ARIZONA CORPORATION CORPORAT

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#### **COMMISSIONERS**

KRISTIN K. MAYES, Chairperson AUG 2 0 2010

5 **GARY PIERCE** 

PAUL NEWMAN 6

SANDRA D. KENNEDY

**BOB STUMP** 

2010 AUG 25 P 2: 17

Arizonal Corporation Commission

DOCKETED

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OF SULPHUR SPRINGS VALLEY ELECTRIC COOPERATIVE, INC. FOR A HEARING TO DETERMINE THE FAIR VALUE OF ITS PROPERTY FOR RATEMAKING PURPOSES, TO FIX A JUST AND REASONABLE RETURN THEREON, TO APPROVE RATES

IN THE MATTER OF THE APPLICATION

DESIGNED TO DEVELOP SUCH RETURN AND FOR RELATED APPROVALS.

IN THE MATTER OF THE APPLICATION OF SULPHUR SPRINGS VALLEY ELECTRIC COOPERATIVE, INC. FOR AN ORDER INSTITUTING A MORATORIUM ON NEW CONNECTIONS TO THE V-7 FEEDER LINE SERVING THE WHETSTONE, RAIN VALLEY, ELGIN,

CANELO, SONOITA, AND PATAGONIA,

DOCKETED BY

DOCKET NO. E-01575A-08-0328

DOCKET NO. E-01575A-09-0453

INTERVENORS' RESPONSE TO SSVEC RESPONSE TO INTERVENORS' APLC. TO REHEAR DECISION NO. 71794

#### **HAND DELIVERED:**

ARIZONA AREAS.

On August 2<sup>nd</sup> Intervenors James F. Rowley and Susan Scott (collectively "Intervenors") filed with the Arizona Corporation Commission ("Commission") Pursuant to A.R.S. 40-253 and A.A.C. R14-3-111 an Application for Rehearing and Reconsideration ("Application") of Decision No. 71794 dated July 12, 2010 ("Decision") in the above captioned consolidation matters. August 10th Sulphur Springs Valley Electric Cooperative, Inc. ("SSVEC") filed a response to the Rehearing Application. Intervenors

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#### **Navigant Report**

In support of Intervenors' Application, the Intervenors attached a July 2010 report 12 prepared by Navigant titled *The 21<sup>st</sup> Century Electric Utility – Positioning for a Low-Carbon* Future ("Report"). SSVEC denies it presents anything to support the inconsistency and lack 14 of independence of the "Independent Study" prepared by Navigant to comply with the requirements of Commission Decision No. 71274.

respectfully submit a response to the SSVEC response to our rehearing Application, and

Intervenors again submit to the Commission that the Decision is contrary to ARS

unsupported by the evidence presented to the Commission by SSVEC. SSVEC's claim

overstatement of facts. Instead, they have blatantly manipulated the facts and overstated

Statute 40-203 "whereby the Commission is charged to find rates unjust", and

that they have presented overwhelming evidence to the contrary is more than an

again request the ACC rehear Decision No. 71794.

the need and urgency for this project.

SSVEC's claim that Intervenors did not cite any language from this report made the report irrelevant to the 69kV problems. Intervenors attached the Report because it contained many passages to support our position. Specific quotes from both the Report and the Independent Study are herein quoted for your added convenience. Within the "Independent Study" Navigant offers a solution (page 42) and then discards it in its Summary (page 93). Perhaps if the "Independent Study" had focused on positioning the SSVEC V7 Feeder area for a Low-Carbon Solution the results of the "Independent Study" 23 would have provided a much different result. Another restriction on the "Independent Study"

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1 was the parameter of time to solve peak loads restricting the solutions available to this area as quoted from Page 8 of the Independent Study:

1) "Independent Study" Page 8, Last Sentence: "Accordingly, our findings include actions that would be considered to ensure reliability is not compromised and sufficient capacity is available to meet feeder and substation peak loads during 2010" (this winter)

With this restriction on the Independent Study before it began, a limitation was placed on Renewable Energy, Demand Side Management, Energy Efficiency, and Fuel Switching. 10 Below is the review of Fuel Switching, which alone and of itself would have solved the 2010 11 peak load situation, however, Navigant did not believe SSVEC could reliably educate and 12 incentivize the V7 area residents to take advantage of a program that would have saved the 13 Cooperative ratepayers collectively \$11,636,000, according to Table 12 page 63, "Economic 14 Comparisons of Feasible Alternatives." Limiting this alternative to the 2010 Winter timeline 15 and not applying this 2010 winter installation deadline to the 69kV line, did not fairly weigh 16 the alternatives and neglected the SSVEC duty to fiscally consider the Fuel Switching 17 Alternative. Given the capability of SSVEC to flood its members with mailings and phone calls, it would seem feasible that a proper education program for Fuel Switching could be achieved by SSVEC.

> 2) "Independent Study" Page 42, referring to Space Heating/Fuel Switching (DS4): "For the Program to be successful, significant conversion of existing systems would be needed over the short-term; strong incentives and aggressive marketing campaign would be needed to reduce demand in amounts sufficient to defer system upgrades. Assuming an average of 2kW of coincident demand and reduction in 200kW is needed to avoid feeder overloads, about 100 customers would need to participate in the first year for this option to be viable. Each vear would require 50 -75 participants to offset load growth. Program costs include incentives designed to offset the cost of modular heating systems and dismantling of electric heating controls. The program could be structured similar

- to the targeted DSM programs described above, which includes incentives based on the value of T&D deferrals."
- heating systems, followed by the installation of oil or gas-fired generators in Sonoita (Navigant did not include Patagonia where a natural gas line is accessible to SSVEC property and could be installed immediately, information that was not provided by SSVEC to Navigant for Study) However, there are clear trade-offs and concerns with the lower cost options. For targeted fuel conversions, the number of eligible customers and level of incentive needed to ensure sufficient participation levels has not been established. (even though this number was stated on page 42 of this report) Such a program would need to be expedited, as the V-7 feeder has reached capacity limits. (this was not proven in the study) Further, the conversion program would only reduce feeder loading voltage regulation and power quality issues would need to be addressed to ensure customers receive a level of service comparable to other feeders on SSVEC's system." "Independent Study" Page 93

It is evident from the "Independent Study" that a combination of Heating/Fuel Switching (DS4) and Demand Side Management (D5) would have solved peak load issues:

4) "Independent Study" Page 3, Notably, several options considered resulted in line loss savings of 500kW or greater. The significance of this finding is that relatively small amounts of demand management and judiciously placed generation results in net effective generation of up to 150 percent of the nameplate rating of the alternative. For example, installation of 2000kW of generation in Sonoita area results in a net load reduction of well over 2500kW as measured at the Huachuca substation.

This combination of alternatives provides more than the 2000kW which was determined by the "Independent Study" to be needed in the V7 area by 2029. (20 years from now)

The Navigant "Report" for Ceres addressing the 21<sup>st</sup> Century Electric Utility "Positioning for a Low-Carbon Future"; talks about utilities needing to welcome alternatives to the "old way" of doing business:

5) "REPORT" Page iv; "To remain competitive, today's utility must respond to the risks and opportunities from climate change, carbon costs, volatile fuel prices, emerging clean technologies, expanding energy efficiency programs, increasing

15 Utility in SSVEC, that is responsible to its ratepayers who have no choice but to invest in

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customer expectations and competing third party energy providers. Responding to these challenges will require new core competencies and revised business models for U.S. utilities.

6) "REPORT" Page v; "A utility that deals effectively with these trends, and receives sufficient support from regulators and legislators, will be better positioned to succeed in the 21st century. All else equal, such a utility is also more likely to attract lower cost capital, enabling it to earn stronger returns for investors. On the other hand, a utility that fails to effectively manage risk, including higher carbon exposure, may suffer greater financial impacts if climate legislation takes hold and fossil generation costs rise."

13 example that demonstrates the possibility for responsible alternatives when considering Carbon Fuel external costs and the desire of the Intervenors to promote a 21st Century

The above referenced remarks from the "Independent Study" and "REPORT", is just one

16 this utility. The Ratepayers deserve the right to have lower carbon alternatives installed now

17 at this important juncture in the evolution of the energy production business.

# 18 Renewable and Distributed Generation Options

As demonstrated in the Navigant Independent Study, the Natural Gas Distributed Generation Option was not thoroughly analyzed. Navigant was not provided the information that natural gas was available at its office site in Patagonia. The Elite Energy Solution for several strategically placed 375kW natural gas generators in the V7 service area would have provided 99.99% reliability. Mr. Prem Bahl, after the ACC Hearing in Phoenix stated to Marshall Magruder, that he did not understand the option until after the hearing, and yes this would provide reliability. A summary of this solution is quoted from the Elite Energy Budget Proposal:

> Elite Energy "Sonoita Reliability Project", Page 2, Paragraph 4: "Our solution to resolve the immediate shortfall would be to install 4ea 375kW natural gas fired, extremely low emissions, power generation modules. As the

limits of the existing transmission line are approached, the individual units will automatically start up, synchronize to the grid and effectively "remove" 375kW of demand as each one is dispatched. In this way the local demand will never exceed the capacity of the primary source electricity – the existing transmission line.

The four(4) modules proposed will provide 1,500kW when all are dispatched at the same time. We would propose that the site of these units be prepared in such a way that more modules can be added as demand increases over time.

The benefits of this distributed generation approach are as follows:

- 1. \$2,700,000 vs. \$14million
- 2. Power supply is added slowly as demand increases, not all at one time.
- 3. The financial burden is a fraction of the cost of the new 69kV line and Sonoita substation.
- 4. We (Elite Energy) would be willing to finance the equipment and spread the cost over 10 years, further reducing the upfront financial burden on local residents and businesses.
- 5. Flexibility. You only dispatch a machine at a time as the demand approaches the available supply from the transmission line, then they shut back down when not needed.
- 8. By the time demand increases to justify a new transmission line, there may be new storage technologies, renewable technologies or other options that are a better long term solution than simply spending lots of money for old technology (a new transmission line). The distributed generation solution provides a solution for at least the next 10-20 years based on current load growth curves.

Renewable Options from the Independent Study were discarded because of

# **Energy Storage:**

"Independent Study" Screening Criterion: page 57: "Energy Storage(R4) – The limited number of installations beyond the demonstration or pilot phase, and the few suppliers of sodium sulfur energy storage systems preclude this option as a commercially available, mature technology."

However, on page 49 of the Independent Study Navigant says:

"American Electric Power (AEP) is among the leaders in the U.S. in applying NaS to T&D systems. Utilities in Japan have successfully applied NaS systems for several years, with over 50 installations. Notably, NaS battery

availability currently is limited due to a high order back-log (up to one year or longer). (pg.49 "Study")

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Typical of this study is to demonstrate the viability of an option or alternative to the 69kV line and then in the next sentence, paragraph, or section disregard it as not viable for reasons that do not consider the fiscal responsibilities of SSVEC or impose the false 7 timeline stated above for implementation by winter 2010. The other shortfall of this study is 8 the blatant disregard for combining alternatives for an optimal, low cost, low carbon solution.

Avean Engineering and Construction LLC prepared a Solar PV Power Project proposal with one line diagram that can be installed in 6 months or less (one year less than the 69kV alternative) by winter 2010: 11

Avean Engineering Proposal for Design, Engineering and Construction of:

- 1) 1MW Solar Power Plant: \$5.1million
- 2) 1MW Lithium Ion Battery Storage Facility \$1.4million
- 3) 1MW natural gas powered Genset \$1million
- 4) Total Cost: \$7.4million
- 5) Solves Energy Needs for 20 years per "Independent Study"

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## Reconductoring of V7 Feeder

The evidence presented by SSVEC demonstrated that SSVEC and ACC staff did not do their due diligence in researching the use of "Prescriptive Easements". As stated by 22 Katharina Richter, Attorney,

> "a letter from Mr. Savage who opines that "the Existing Easement most likely is a prescriptive easement, that is, an easement that was created as a result of adverse possession. Mr. Savage concludes that the 69kV line will overburden the Existing Easement, will result in litigation and possible loss of all of SSVECs rights to the Existing Easement. ....(however)..None of the cases (quoted by Mr. Savage) address the question of whether an increase in the carrying capacity of a utility line within a prescriptive easement is an unreasonable expansion of the easement rights." "Other Arizona cases, omitted by Mr. Savage, make clear that the holder of an

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easement is authorized to make any use the servient estate [the property burdened by the easement] that is reasonably necessary ... for the easement."

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The Intervenors' proposal was not to build a 69kV line on the existing easement, but to Reconductor and Double Circuit on the existing line on the Prescriptive Easement which 6 would not have changed the use of the easement, clearly keeping it a distribution line, which would not require more easement purchases. SSVEC has tried to divert the reality of this 8 proposal by only focusing on upgrading to a 69kV line. The current V7 Feeder needs to have poles replaced and to add new wires at this time would make fiscal sense, rather than installing a new 69kV line. As evidenced by the cost \$7.9million as opposed to \$14.5million.

#### **Public Forums**

The Intervenors again assert that SSVEC made a mockery of the Public Process and did not follow ACC Decision No. 21274, as demonstrated with the above solutions (and 14 other possibilities for DSM and Renewable options) which were not discussed in any open 15 forum, one illegible slide referencing all options that were not viable does not meet the 16 requirements of:

> ACC Decision No. 21274, "public forums.... Topics shall include, but not be limited to, addressing how renewable energy generation (in particular distributed generation) could be incorporated into the generation plans to serve the (V7) area....."

"SSVEC shall not commence construction of the referenced 69kV line until the public has had an opportunity to review and comment on the report.."

The Commission was misled by SSVEC and thence erred in its "Finding of Fact 111 of the Decision that SSVEC complied with this requirement.

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#### WILDCAT MINE

SSVEC did not present conclusive evidence at the Hearing or Open Meeting that would preclude providing power to the Wildcat Mine. No evidence was submitted to prove there was no communication between SSVEC and Wildcat Silver Management.

Again we assert that SSVEC can provide Wildcat Silver – Hardshell Mine Project – with a Cross Boundary Agreement that is approved by UNS Electric and the ACC, therefore, statutorily, Wildcat should pay for the line extension from Hwy 90 if the mining operation requires and receives power. The Cooperators should not bear the cost for a private company's line extension, especially one of this magnitude. SSVEC should not be allowed 12 to manipulate the system to provide a multimillion dollar line extension to a Mine that will have multiple negative economic and environmental impacts on this area, at Ratepayer expense.

It is well documented that the 69kV line is more power and more expense than is necessary, at this time, for a future 20year - 2,000 kW need in this area. The Intervenors 18 have presented many options that are supported by Engineers and Demand Side 19 Management Experts to the contrary at the Hearing and Open Meeting June 29, 2010.

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#### CONCLUSION

The Arizona Corporation Commission has a responsibility to the rate payers of SSVEC to assure rates are fair (ARS Statute 40-203).

### According to the Navigant "Report" pages 23-24:

"Resource planning should involve greater stakeholder involvement on a wider regional level and consider the full spectrum and Energy Efficiency, and Distributed Renewables for Capacity Deferral resources. Finally, utilities should update planning criteria and system design standards to reflect current and future costs of CO2, Energy Efficiency, and Distributed Renewables for Capacity Deferral, equipment and permitting. In summary, utility planning processes should:

- 1. Utilize transparent analysis and decision frameworks;
- 2. Fairly evaluate EE and RE in robust scenario analysis;
- 3. Facilitate input from key stakeholders; and
- 4. Educate the public and policy makers about complex energy issues.

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By circumventing "Real Public Forums" and ignoring the results of the "Navigant 17 Report" recommendations stated above, for a strong Utility of the 21st Century, SSVEC is 18 putting our Cooperative in jeopardy of higher rates and costs to be borne by the consumer, 19 at a time when people have to cut personal budgets. SSVEC should be required to be fiscally responsible to their customers as well, and utilize the lowest cost solutions.

In practice the ACC has shown the State of Arizona they are aggressively supporting renewable and clean energy resources, through the REST Program and other Clean Energy Programs.

The Intervenors believe SSVEC misled the Commission by presenting a single focus solution requiring a minimum of \$14 million of ratepayer money on the proposed 69kV line when several much more cost effective and environmentally sensitive solutions exist, as presented at the Hearing and June 29, 2010 Open Hearing and previous filings. One further 1 failing from SSVEC is to reveal the construction costs of the feeder lines from the Sonoita Substation.

Our solutions so far presented can save the utility up to \$10million, (during tough economic times); eliminate the impact of a new utility corridor through this area; and reduce the implementation timeline for the operation of more reliable energy sources. They are 6 summarized here, all solutions and combinations thereof address the 2 Megawatt need by 2029, well before that time frame. :

- 1) Reconductor/Double Circuit present V7 Feeder: \$7.9million
- 2) 1Megawatt Solar Array with 1Megawatt storage: \$6.5 million
- 3) 1 Megawatt Natural Gas Generator: \$1 million
- 4) Install 4 375kW Natural Gas Fired Generators: \$4 million.

Other solutions that were not given fair vetting in the Feasibility Study that will multiply the effectiveness of these solutions: are Demand Side Management and Conservation.

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We respectfully request a rehearing in this matter to ensure that the best possible, most cost effective, low carbon, and immediately available solution be fully considered.

RECOMMENDATION

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#### Attachment:

22 Photographs of the Sonoita Area where views will be changed forever. These vistas were 23 not included in the Navigant "Independent Study" Photographs

1	Respectfully submitted on this 20th day of August 2010,
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6	Jan 17 Mu
7	James F. Rowley
8	HC 1 Box 259
9	Elgin, Arizona 85611
10 11	jfrowleylll@msn.com
12	
13	
14	hundka
15	Munilla
16	Susan Ścott
17	PO Box 178
18	Sonoita, Arizona 85637
19	ScottSonoita@gmail.com
20	
21	
22	Original and 13 Copies
23 24	Docket Control
25	
26	T control of the cont
27	Phoenix, Arizona 85007
28	,
29	Bradley S. Carroll
30	Snell & Wilmer L.L.P.
31	
32	
33	Phoenix, Arizona 85004-2202
34	Cup Douming
35 36	Sue Downing HC 1 Box 197
30 37	Elgin, Arizona 85611
38	Steeldustranch@yahoo.com
٥٥	Oleenustranchiwyanoo.com

# Attachment A



